

Title (en)

ADAPTIVE CHARGING VOLTAGE GENERATOR OF MOBILE DEVICE CHARGER

Title (de)

GENERATOR VON ADAPTIVER LADESPANNUNG FÜR MOBILVORRICHTUNGSLADEGERÄT

Title (fr)

GÉNÉRATEUR DE TENSION DE CHARGE ADAPTATIVE POUR CHARGEUR DE DISPOSITIF PORTABLE

Publication

EP 3211749 A1 20170830 (EN)

Application

EP 16156451 A 20160219

Priority

- US 20166227737 P 20160112
- US 201615013493 A 20160202

Abstract (en)

An adaptive charging voltage generator (110) of a mobile device charger (100) includes: a power receiving interface (210) for receiving a DC voltage (VA) and a cable current (IA) from a cable (130); a terminal communication interface (220) for transmitting a charging voltage (VB) and a charging current (IB) to a connection terminal (120) of the mobile device charger (100) and for receiving a communication signal (X1B; X2B) generated by a mobile device (150) from the connection terminal (120); a buck converter (230) for receiving the DC voltage (VA) and the cable current (IA) from the power receiving interface (210) and for generating the charging voltage (VB) and the charging current (IB), wherein the charging voltage (VB) is lower than the DC voltage (VA) while the charging current (IB) is greater than the cable current (IA); and a charging voltage control circuit (260) coupled with the buck converter (230) and configured for controlling the buck converter (230) according to the communication signal (X1B; X2B).

IPC 8 full level

H02J 7/00 (2006.01); **G06F 1/26** (2006.01)

CPC (source: CN EP US)

H02J 7/00 (2013.01 - CN); **H02J 7/0042** (2013.01 - US); **H02J 7/0044** (2013.01 - CN US); **H02J 7/007** (2013.01 - CN); **H02J 7/00714** (2020.01 - EP US); **H02J 7/007182** (2020.01 - EP US); **H02J 7/007192** (2020.01 - EP US); **H02J 7/0072** (2023.08 - CN); **H02M 3/158** (2013.01 - EP US); **H02M 3/1584** (2013.01 - EP US); **H04M 19/00** (2013.01 - US); **G06F 1/266** (2013.01 - US); **H02J 7/00** (2013.01 - US); **H02J 2207/20** (2020.01 - CN EP US); **H02J 2207/40** (2020.01 - EP US); **H02M 1/007** (2021.05 - EP US)

Citation (search report)

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Designated contracting state (EPC)

AL AT BE BG CH CY CZ DE DK EE ES FI FR GB GR HR HU IE IS IT LI LT LU LV MC MK MT NL NO PL PT RO RS SE SI SK SM TR

Designated extension state (EPC)

BA ME

DOCDB simple family (publication)

US 2017201107 A1 20170713; **US 9979214 B2 20180522**; CN 106961132 A 20170718; CN 106961210 A 20170718; CN 106961210 B 20190910; CN 205385409 U 20160713; CN 205544410 U 20160831; EP 3211749 A1 20170830; EP 3211749 B1 20181205; JP 2017127177 A 20170720; JP 6351653 B2 20180704; KR 101913711 B1 20181101; KR 20170084670 A 20170720; US 2017201101 A1 20170713

DOCDB simple family (application)

US 201615013459 A 20160202; CN 201610076548 A 20160203; CN 201610076694 A 20160203; CN 201620109992 U 20160203; CN 201620110010 U 20160203; EP 16156451 A 20160219; JP 2016090935 A 20160428; KR 20160030802 A 20160315; US 201615013493 A 20160202